DETAILED ACTION

1. Applicants response filed March 10, 2011 has been received, entered and carefully considered. The response affects the instant application accordingly:

(A) Claims 13, 16, 18, 21 and 22 have been canceled; Claims 1-8, 11, 12, 14 and 15 are withdrawn from consideration.

(B) Comments regarding Office Action have been provided drawn to:

(I) 103(a) rejection, which is maintained for the reasons of record.

2. Claims 9, 10, 17, 19 and 20 are subjected to examination in the instant Office Action.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

4. Claims 9, 10, 17, 19 and 20 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Okajima et al (US Patent No. 4,389,523) in view of Michaeli (US Patent No. 4,912,093) for the reasons disclosed below.

Applicants claim a wound dressing comprising a synthetic sulfated polysaccharide, wherein the sulfated polysaccharide is selected from the group consisting of sulfated hydroxyethyl cellulose, sulfated carboxymethyl cellulose and sulfated oxidized regenerated cellulose, said synthetic sulfated polysaccharide being present in an amount sufficient to bind matrix metalloproteinases, and amended the claims to recite "wherein from about 3 to about 4 sulfate groups on each saccharide residue of said synthetic sulfated polysaccharide was converted from hydroxyl groups".

The Okajima et al patent teaches an anticoagulant cellulose sulfate with substitution degree of 0.8 to 2.6 (see column 3, lines 40-45) and optimization by increasing anti-coagulating property with increasing substitution degree (see column 4, lines 10-20). There is some overlap between 2.6 and "about 3" in view of the teaching of the Okajima et al patent of increasing substitution degree.

The instantly claimed invention differs from the Okajima et al patent by claiming that the wound dressing is in the form of solid complex with collagen.

Michaeli teaches wound healing properties of sulfated oligosaccharides and their use in combination with collagen.

One of ordinary skill in this art would also be motivated to combine the teaching of the Okajima et al patent with the teaching of the Michaeli patent since both documents disclose sulfated saccharides comprising medicinal properties.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate into the sulfated cellulose composition of the

Okaijima et al patent collagen in view of the recognition in the art, as evidenced by the Michaeli patent, that collagen exhibits beneficial effects in wound healing, such as by providing a matrix for cell migration and growth.

Response to Arguments

5. Applicant's arguments filed March 10, 2011 have been fully considered but they are not persuasive. The recitation in instant Claim 17 that the synthetic sulfated polysaccharide comprised in the wound dressing thereof comprise from about 3 to about 4 sulfate groups on each saccharide residue of the synthetic sulfated polysaccharide are converted from hydroxyl groups, which clearly over laps the teaching of the sulfate substitution degree of 0.8 to 2.6 for the cellulose sulfate of the Okajima et al patent wherein the cellulose sulfate possesses anti-coagulating property. The recitation in the instant claims of the sulfated polysaccharide having “about 3 sulfate groups on each saccharide residue” appears to covers a range as low as 2.5 sulfate groups on each saccharide residue which embraces the sulfate substitution degree of 2.6 disclosed in the Okajima et al patent since the instant specification on page 4, 1st paragraph recites “preferably, at least 1 hydroxyl group, on average on each saccharide residue has been converted to sulfate groups.” This demonstrates that the context of the term “about” as it is used in the instant specification and claims of the instant application covers at least the 2.6 sulfate substitution degree disclosed in the Okajima et al patent. The Michaeli patent is cited to show that the wound healing properties of sulfated saccharides in combination with collagen is well known in the art.

On page 6 of Applicant's Remarks, Applicants assert Okajima teaching <<F>> of about 3 is not desirable, Okajima teaches the cellulose sulfate having a <<F>> of about 3.00 still has the same anti-coagulant property but is not desirable only because it is not stable if stored for a long time. Also, the number of significant digits is relevant, because in context "about 3.00" implies a narrower range than "about 3". Therefore any teaching away of Okajima regarding "about 3.00" does not necessary apply to the broader claimed range of "about 3".

Accordingly, the rejection of Claims 9, 10, 17, 19 and 20 under 35 U.S.C. 103(a) as being unpatentable over the Okajima et al patent in view of the Michaeli patent is maintained for the reasons of record.

Summary

6. Claims 9, 10, 17, 19 and 20 are rejected; Claims 1-8, 11, 12, 14 and 15 are withdrawn from consideration as being directed to non-elected inventions.

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Examiner's Telephone Number, Fax Number, and Other Information

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Everett White whose telephone number is 571-272-0660. The examiner can normally be reached on Monday, Tuesday, Thursday and Friday from 10:30 am to 6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shaojia A. Jiang can be reached on 571-272-0627. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Everett White/
Examiner, Art Unit 1623

/SHAOJIA ANNA JIANG/
Supervisory Patent Examiner, Art Unit 1623